



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,623	05/08/2006	Yasuyuki Sanai	Q94379	1501
23373 7590 02/02/2009 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER				
TREIDL, JESSICA I				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
02/02/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/578,623

Applicant(s)

SANAI, YASUYUKI

Examiner

JESSICA TREIDL

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/29/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukushima et al (US 5,969,867).

Regarding claims 5-13, Fukushima et al teach an active ray-curable composition (Abstract) comprising an active energy ray-sensitive radical polymerization initiator (5:4-5) {photoinitiator}, bis(4-(meth)acryloyldiethoxyphenyl) sulfide (6:46-47), and 2-phenylphenyl(meth)acrylate (8:2) {o-phenylphenyl acrylate}. Regarding the weight percent limitations of instant components (A) and (B), Fukushima et al teach the composition comprising 10-90 parts by weight of instant structure (1) (7:3-5, wherein instant structure (1) is equivalent to reference component (B-1)) and 1-50 parts by weight of instant structure (2) (8:15-17, wherein instant structure (1) is equivalent to reference component (B-2)). The selection of bis(4-(meth)acryloyldiethoxyphenyl) sulfide as reference component B-1 and 2-phenylphenyl(meth)acrylate as reference component B-2 would have been easily envisioned by one of ordinary skill in the art, given the disclosure.

Regarding claim 14, Fukushima et al teach the cured composition having a refractive index of 1.62 or higher (9:39), however the reference is silent to the temperature at which the refractive index is measured. Additionally, the reference teaches the refractive index of equivalent compositions being higher than 1.62 at 20°C (Table 2 Ex. 8, 9, 11, 12 & 13, 10:64). The Office realizes that all the claimed effects or physical properties are not positively stated by the reference. However, the reference teaches all of the claimed reagents. Therefore, the claimed effects and physical properties, i.e. a refractive index of 1.59 or higher at 25 °C, would inherently be achieved by a composition with all the claimed ingredients. If it is the applicants' position that this would not be the case: (1) evidence would need to be presented to support applicant's position; and (2) it would be the Office's position that the application contains inadequate disclosure that there is no teaching as to how to obtain the claimed properties and effects with only the claimed ingredients.

Regarding claim 15, Fukushima et al teach the active energy ray-curable composition as a lens sheet (Abstract).

Claims 16-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukushima et al (US 5,969,867).

Regarding claims 16-24, Fukushima et al teach a method for producing a lens sheet comprising casting an active energy ray-curable composition into a lens mold and irradiating for curing (9:7-16). Furthermore, Fukushima et al teach an active ray-curable composition (Abstract) comprising an active energy ray-sensitive radical polymerization

initiator (5:4-5) {photoinitiator}, bis(4-(meth)acryloyldiethoxyphenyl) sulfide (6:46-47), and 2-phenylphenyl(meth)acrylate (8:2) {o-phenylphenyl acrylate}. Regarding the weight percent limitations of instant components (A) and (B), Fukushima et al teach the composition comprising 1-90 parts by weight of instant structure (1) (7:3-5, wherein instant structure (1) is equivalent to reference component (B-1)) and 1-50 parts by weight of instant structure (2) (8:15-17, wherein instant structure (1) is equivalent to reference component (B-2)). The selection of bis(4-(meth)acryloyldiethoxyphenyl) sulfide as reference component B-1 and 2-phenylphenyl(meth)acrylate as reference component B-2 would have been easily envisioned by one of ordinary skill in the art, given the disclosure.

Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukushima et al (US 5,969,867) in view of Baba et al (JP 09-235338), see English language machine translation and English language abstract.

Regarding claims 25 and 26, Fukushima et al render the basic claim obvious [as set forth above with respect to claim 1]. Fukushima et al teach the composition comprising diphenyl containing monoacrylate monomers used alone or in mixtures of 2 or more (7:15-40, 8:9-10), but Fukushima et al does not teach the diphenyl containing monoacrylate monomer being p-cumylphenol (meth)acrylate.

However, Baba et al teach a radiation curable resin composition for optical components such as hybrid lens, film lens for liquid crystal display and Fresnel lens (Abstract, [0004]). The reference teaches the composition comprising reference

component A being an acrylated bisphenol S compound ([0009]), and reference component B being a p-cumylphenol (meth)acrylate ([0012], abstract), wherein the p-cumylphenol acrylate reduces the contraction of the composition during hardening ([0013]). Baba et al teach the p-cumylphenol acrylate to contain a repeating ethylene oxide unit ([0006], [0012]). Fukushima et al and Baba et al are analogous art because they are concerned with the same field of endeavor, namely radiation curable compositions for optical components. At the time of invention a person of ordinary skill in the art would have found it obvious to have added p-cumylphenol acrylate, as taught by Baba et al, to the composition of Fukushima et al and would have been motivated to do so since Baba et al teach that the addition of p-cumylphenol acrylate to the composition reduces the contraction during hardening ([0013]). Furthermore it would have been obvious to use the p-cumylphenol acrylate compound of Baba et al, wherein the ethyleneoxide unit is repeated zero times, as it is the simplest version of the p-cumylphenol (meth)acrylate and a natural starting point.

Response to Arguments

The objection to the abstract has been withdrawn, as Applicants have amended apropos to the suggested correction.

Regarding Applicant's statement that Example 11 in Fukushima et al uses BPA-5, which is not defined in the specification but is believed to be BPM-5 or BPA-2, is not within the scope of formula (1) because neither BPM-5 nor BPA-2 contains a sulfur atom, Examiner further clarifies that BPA-5(BPM-5), in Example 11, is used as

reference component B-1, and is interchangeable with other compounds disclosed by the reference as component B-1, those taught by formula II, such as bis(4-(meth)acryloyloxydiethoxyphenyl)-sulfide.

Regarding Applicant's statement that "formula (B-1) in Fukushima is quite broad and cannot be fairly said to anticipate the present invention," Examiner agrees, and directs Applicant's attention to the explicit disclosure of bis(4-(meth)acryloyloxydiethoxyphenyl)-sulfide (6:46-47).

As Fukushima et al do not explicitly teach an advantage to the structure wherein the alkoxy side groups are present, the obviousness-type double patenting rejection over 11/589,660 in view of Fukushima et al has been withdrawn.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA TREIDL whose telephone number is (571)270-3993. The examiner can normally be reached on Monday- Thursday, 7:30AM- 5PM EST, Alt. Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J.T./
/1.22.09/
/Sanza L McClendon/

Application/Control Number: 10/578,623
Art Unit: 1796

Page 7

Primary Examiner, Art Unit 1796